

AMENDMENTS TO THE DRAWINGS:

Submitted here are additional sheet 12 (Figures 17A, 17B, 18A, 18B), additional sheet 13 (Figures 19A, 19B, 20A, 20B), additional sheet 14 (Figures 21A, 21B, 22A, 22B), additional sheet 15 (Figures 23A, 23B, 24A, 24B), and additional sheet 16 (Figures 25A, 25B). These drawings show the feature of the various non-circular cross sectional shapes of the elongated suture body.

Attachment: Additional sheets 12, 13, 14, 15, and 16 of drawings.

REMARKS/ARGUMENTS

The Examiner is thanked for taking the time for an in-person interview at the US Patent and Trademark Office with the undersigned, Mr. Michael Johnston, on August 15, 2007.

DISCUSSION OF AMENDMENTS

No new matter has been added by any of the amendments. The Examiner is respectfully requested to enter them, although the amendments are being presented after Final Rejection. Applicants respectfully submit that the amendments place the case in condition for allowance, and do not raise new issues and do not require a new search.

Each of independent claims 17, 18, 141, 142, and 143 is now being amended to require:

wherein each successive barb is offset from the previous barb relative to the longitudinal axis of the body such that any plane perpendicular to the body and cutting transversely through the body and intersecting any portion of a barb will not intersect any portion of any other barb on the body,

support being in Figure 7A.

Each of claims 18, 19, 20, 142, and 143 is now being amended to correct a typographical error by changing “spiraled angle” instead to read as “spirality angle”.

Independent claim 34 is being canceled.

Each of dependent claims 79 – 84 is being canceled, as each was dependent on or back to now canceled independent claim 34.

The dependency of each of dependent claims 150 and 151 is now being changed to dependency on independent claim 141, instead of dependency on now canceled independent claim 34.

Each of claims 146, 149, and 152 is now being amended to correct an editorial error by changing “parallepiped” instead to read as “parallelogram”, and also paragraph [0049] has been amended to correct an editorial error by changing “parallepiped” instead to read as “parallelogram”. A “parallepiped” [misspelled as “paraleliped” in claims 146, 149, and 152] is 3-dimensional. However, the reference is to the suture body cross-section, which is clearly planar, not 3-dimensional. Thus, “parallelogram”, which is planar, is clearly what was intended.

With regard to the various non-circular cross-sectional shapes of the elongated suture body, new paragraphs [0205.1], [0205.2], [0205.3], [0205.4], [0205.5], [0205.6], [0205.7], [0205.8], and [0205.1] describe the new Figures in the additional sheets of drawings being submitted -- additional sheet 12 (Figures 17A, 17B, 18A, 18B), additional sheet 13 (19A, 19B, 20A, 20B), additional sheet 14 (21A, 21B, 22A, 22B), additional sheet 15 (23A, 23B, 24A, 24B, 25A), and additional sheet 16 (25B). Support is in paragraph [0049] of the specification.

Applicants respectfully request further examination and reconsideration of the application in view of the discussion below.

DISCUSSION OF REJECTIONS OF CLAIMS

In the present Office Action, the Examiner rejected claims 17 – 20, 34, 141 – 144, 147, and 150 under 35 USC 103(a) as being unpatentable over US Patent 3,123,077 to Alcamo, in view of US Patent 5,123,911 to Granger. Specifically, the Examiner maintained the rejection of

claims 17 - 20 and 34 from the previous Office Action, and additionally rejected new claims 141 - 144, 147, and 150 submitted responsive to that previous Office Action.

Also, in the present Office Action, the Examiner rejected Claims 55 - 66 and 79 - 84 under 35 USC 103(a) as being unpatentable over Alcamo in view of Granger, as applied above, and further in view of US Patent 5,931,855 to Buncke. Specifically, the Examiner maintained the rejection of claims 55 - 66 and 79 - 84 from the previous Office Action.

Additionally, in the present Office Action, the Examiner rejected Claims 17 - 20, 34, 55 - 66, 79 - 84, 141 - 144, 147, and 150 under 35 USC 103(a) as being unpatentable over Alcamo in view of Granger, as applied above, and further in view of US Patent 5,931,855 to Buncke. Specifically, the Examiner maintained the rejection of claims 17 - 20, 34, 55 - 66, and 79 - 84 from the previous Office Action, and additionally rejected new claims 141 - 144, 147, and 150 submitted responsive to that previous Office Action.

Furthermore, in the present Office Action, the Examiner rejected Claims 145, 146, 148, 149, 151, and 152 under 35 USC 103(a) as being unpatentable over Alcamo in view of Granger (or Buncke in view of Granger), as applied to the claims above, and further in view of US Patent 3,918,455 to Coplan. Coplan is newly cited in the present Office Action. Specifically, the Examiner rejected new claims 145, 146, 148, 149, 151, and 152 submitted responsive to the previous Office Action, and all of which claims are directed to embodiments where the suture body has a non-circular cross-sectional shape.

Claims 34 and 79 - 84 are being canceled, and thus, any issues vis-à-vis these claims are moot.

Summarily, the Examiner reiterated his argument from the prior Office Action that Alcamo discloses a barbed suture with helically positioned barbs, but Alcamo does not disclose the ratio of the suture diameter to needle diameter is not disclosed or the barbs being in a twist cut multiple spiral disposition. The Examiner again noted that the twist cut is really a product-

by-process limitation. Also, the Examiner again asserted that once the cuts are made after the suture has been twisted, the suture is unwound, and the resulting pattern of the cuts is merely a multiple spiral, and since Alcamo discloses a suture with barbs which are in multiple spirals, this limitation is met. Additionally, the Examiner reiterated that Granger discloses that it was known to attach sutures to suturing needles, wherein the diameter of the needle is equal to the diameter of the suture. Further, the Examiner reiterated that Buncke discloses a barbed suture with helically positioned barbs, and the claimed absorbable or non-absorbable suture materials. Regarding newly cited Coplan, the Examiner stated Coplan discloses "that it was known to manufacture sutures to have other shaped sutures" and concluded that "It would have been a mere obvious design choice to have manufactured the sutures of Alcamo or Buncke as modified by Granger in a non-round shape as taught by Coplan."

At the top of page 8 of the present Office Action (the Examiner's Response to applicants' arguments from applicants' response to the prior Office Action), the Examiner noted:

As stated before, once applicants' suture is unwound, the disposition of the spirals would be similar if not the same as the prior art. The fact that the prior art's sutures would have additional barbs in between the barbs which are aligned in a spiral fashion is not germane to the issue. Applicants' claims are couched in the open transitional phrase of "comprising" and therefore, the prior art suture barbs can have additional barbs to those spirally-disposed.

During the August 15, 2007 interview at the US Patent and Trademark Office, Mr. Michael Johnston and the Examiner discussed the open transitional phrase, as well Mr. Johnston's following proposal for amendment to all independent claims:

wherein each successive barb is offset from the previous barb relative to the longitudinal axis of the body such that any plane perpendicular to the body and cutting transversely through the body and intersecting any portion of a

barb will not intersect any portion of any other barb on the body,

in order to distinguish over what the Examiner designated as the prior art's sutures having additional barbs in between the barbs which are aligned in a spiral fashion.

As noted above, each of independent claims 17, 18, 141, 142, and 143 is now being amended to have this requirement. Due to incorporation by reference, all dependent claims also now have this requirement.

With this amendment, the claimed barbed sutures do not have additional barbs in between the barbs which are aligned in a spiral fashion. Thus, Applicants respectfully submit that all of the claims now distinguish over what the Examiner designated as the prior art's sutures having additional barbs in between the barbs which are aligned in a spiral fashion.

Although the amendments to each of independent claims 17, 18, 141, 142, and 143 are being submitted after Final Rejection, Applicants respectfully submit that the amendments place the case in condition for allowance, and do not raise new issues and do not require a new search.

Thus, the Examiner is respectfully requested to enter the amendments being submitted after Final Rejection, and to withdraw all of the 103(a) rejections of the claims.

DRAWINGS

In the present Office Action, the Examiner objected to the drawings and noted that new claims 145, 146, 148, 149, 151, and 152, submitted responsive to the previous Office Action, are all directed to embodiments where the suture body has a non-circular cross sectional shape, but this feature is not shown in the drawings. The Examiner further stated that this feature must be shown with submission of corrected drawing sheets, and no new matter should be entered.

Applicants are submitting here additional sheets 12, 13, 14, 15, and 16 of drawings showing the various non-circular cross sectional shapes of the elongated suture body, which shapes are respectively triangle cross section (sheet 12, Figures 17A and 17B), oval cross section (sheet 12, Figures 18A and 18B), square cross section (sheet 13, Figures 19A and 19B), trapezoid cross section (sheet 13, Figures 20A and 20B), rhomboid cross section (sheet 14, Figures 21A and 21B), parallelogram cross section (sheet 14, Figures 22A and 22B), pentagon cross section (sheet 15, Figures 23A and 23B), cruciform cross section (sheet 15, Figures 24A and 24B), and hexagon cross section (sheet 16, Figures 25A and 25B).

In connection with the additional drawing sheets, also being added to the specification are new paragraphs [0205.1], [0205.2], [0205.3], [0205.4], [0205.5], [0205.6], [0205.7], [0205.8], and [0205.1] to describe the new Figures in the additional sheets of drawings being submitted.

As noted above, support for the additional drawing sheets and the new paragraphs describing the drawing sheets is in paragraph [0049] of the specification.

Hence, the Examiner is respectfully requested to withdraw the objection to the drawings and enter the newly submitted additional sheets 12, 13, 14, 15, and 16 of drawings.

CONCLUSIONS

For all the reasons set forth above, Applicants believe all claims as now being amended are non-obvious and should be allowed. Thus, the Examiner is respectfully requested to enter the amendments being submitted and to withdraw all of the 103(a) rejections of the claims. Also, the Examiner is respectfully requested to withdraw the objection to the drawings and enter the newly submitted additional sheets 12, 13, 14, 15, and 16 of drawings.

A notice of allowance is courteously solicited. In the event any issues remain, the Examiner is invited to contact the undersigned attorney to resolve the same.

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Respectfully submitted,

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Encls.: Additional sheets 12, 13, 14, 15, and 16 of drawings
Petition for Extension of Time (3 months)
Notice of Appeal